

Nikon Digital SLR Camera D2H Specifications

Type of Camera	Lens-interchangeable digital SLR camera
Effective Pixels	4.1 million
Image Sensor	JFET image sensor LBCAST, 23.3 x 15.5mm size, 4.26 million total pixels
Recording Pixels	[L] 2,464 x 1,632-pixel / [M] 1,840 x 1,224-pixel
Sensitivity	ISO equivalency 200 to 1,600 (variable in 1/2, 1/3, or 1 EV steps), Sensitivity can be extended by 1 or 2 steps beyond ISO 1,600
Storage System	NEF (12-bit RAW uncompressed or lossless compression), Exif 2.2 file (uncompressed TIFF-RGB or compressed JPEG)
Storage Media	CompactFlash™ (CF) Card (Type I / II) and Microdrive™
Shooting Modes	1) Single frame shooting [S] mode: advances one frame for each shutter release 2) Continuous high shooting [C+] mode: 8 frames per second (fps) [up to 40 (JPEG) / 25 (RAW:NEF) consecutive shots] 3) Continuous low shooting [C.] mode: 1 to 7 fps (selectable from menus) 4) Self-timer mode: time duration can be set 5) Mirror up mode: first press: mirror up, second press: release 6) Playback mode: Menu mode 7) PC mode: data transfer via personal computer 8) Interval timer (Intervalometer) mode provided
White Balance	1) Auto (hybrid with 1,005-pixel CCD, LBCAST image sensor and external Ambience Light Sensor 2) Manual (6 steps with fine tuning) 3) Preset (5 settings) 4) Color temperature setting in Kelvin (select from 31steps) 5) White Balance Bracketing (2 to 9 frames adjustable in 10,20,30 MIREd steps)
LCD Monitor	2.5-in., 211,200-dot, low temp. polysilicon TFT LCD with white LED backlighting; Backlight/brightness adjustment available
Playback Function	1) Full frame, 2) Thumbnail (4/9 segments), 3) One-touch zoom, 4) Slideshow, 5) Histogram indication, and Highlight point display
Delete Function	1) Card format, 2) All frames delete, 3) Selected frames delete
Video Output	NTSC or PAL (switchable)
Interface	USB 2.0 (Hi-Speed) (Mini-B connector) FTP file transfer available with optional Wireless Transmitter WT-1(IEEE 802.11b)
Voice Memo	Record mode: Automatic or manual recording at shooting or playback, Max. recording time: 60 seconds Playback mode: Built-in speaker or Audio/Video cable File format: Mono WAV file
Text Input	Up to 30 characters of alphanumeric text input is available with LCD monitor and multi-selector; stored in Exif header
Usable Lenses	1) AF Nikkor (including AF-S, DX, VR and D-G-type) : All functions possible 2) D-type Manual-Focus Nikkor: All functions except autofocus and some exposure modes available 3) AF Nikkor other than D-/G-type: All functions except 3D Color Matrix Metering and 3D Multi-Sensor Balanced Fill-Flash possible 4) AI-P Nikkor: All functions except 3D Color Matrix Metering, 3D Multi-Sensor Balanced Fill-Flash and AF possible 5) Non-CPU AI Nikkor : Usable in [A] or [M] mode with Matrix-Metering, Center-Weighted and Spot metering available. Indication of aperture No., after user inputs the aperture f/No. and focal length f=mm by multi-selector operation. Electronic Rangefinder usable with maximum aperture of f/5.6 or faster
Picture Angle	Approx. 1.5x focal length in 35mm [135] format equivalent
Viewfinder	Optical-type fixed eye-level pentaprism; Built-in diopter adjustment(-3 to +1m ⁻¹), Eyepiece shutter provided
Eyepoint	19.9mm (at -1.0m ⁻¹)
Focusing Screen	B-type BrightView Clear Matte Screen III; Interchangeable with optional E-type finder screen with grid
Viewfinder Frame Coverage	Approx. 100%
Viewfinder Magnification	Approx. 0.86x with 50mm f/1.4 lens set to infinity and -1.0m ⁻¹
Reflex Mirror	Automatic, instant-return type
Lens Aperture	Instant-return type, with depth-of-field preview button
Autofocus	TTL phase detection, Nikon Multi-CAM2000 autofocus module; Detection range: EV -1 to +19 (ISO 100 equivalent, at normal temperature)
Lens Servo	1) Single Servo AF [S] , 2) Continuous Servo AF [C], 3) Manual focus [M] Focus Tracking automatically activated by subject's status in [S] or [C] AF
Focus Area	Selectable from 11 focus areas
AF Area Mode	1) Single Area AF, 2) Dynamic AF with Focus Tracking and Lock-on™, 3) Closest Subject Priority Dynamic AF, 4) Group Dynamic AF
Focus Lock	Focus is locked by pressing AE/AF Lock button or lightly pressing shutter release button in [S]AF .

Exposure Metering System	TTL full-aperture exposure metering system; 1) D-/G-type Nikkor lenses support 3D Color Matrix Metering using the 1,005-pixel RGB CCD while other AF Nikkor lenses with built-in CPUs support Matrix Metering (Non-CPU lenses require manual input of lens data) 2) Center-Weighted Metering (75% of the meter's sensitivity concentrated on the 8mm dia. circle) 3) Spot Metering (3mm dia. circle, approx. 2% of entire frame); metering position can be linked to the focus area when using Nikkor lenses with built-in CPU
Exposure Metering Range	1) 3D Color Matrix Metering: EV 0 to 20 2) Center-Weighted Metering: EV 0 to 20 3) Spot Metering: EV 2 to 20 [at normal temperature (20°C/68°F), ISO 100 equivalent, f/1.4 lens]
Exposure Meter Coupling	CPU and AI (Automatic maximum aperture Indexing)
Exposure Mode	1) [P] Programmed Auto (Flexible program possible) 2) [S] Shutter-Priority Auto 3) [A] Aperture-Priority Auto 4) [M] Manual
Exposure Compensation	Exposure compensated in ±5.0 EV range in 1/3, 1/2 or 1 EV steps
Auto Exposure Lock	Detected exposure value locked by pressing AE-L/AF-L button
Auto Exposure Bracketing	Number of shots: 2 to 9 frames Compensation steps: 1/3, 1/2, 2/3, or 1EV steps
Shutter	Electromagnetically controlled vertical-travel focal-plane shutter, 30 to 1/8,000 s and bulb
Sync Contact	X-contact only; flash synchronization up to 1/250 s
Flash Control	1) New Creative Lighting System: i-TTL Balanced Fill-Flash controlled by five-segment TTL Multi Sensor with Nikon Speedlight SB-800: Advanced Wireless Lighting, FV (Flash Value) -lock, Flash Color Information Communication for Auto White Balance, Auto FP High-Speed Flash Sync, Modeling Flash 2) D-TTL Balanced Fill-Flash: When used with the Speedlight SB-80DX/50DX and in accordance with the mounted lens, five-segment TTL Multi Sensor control makes available 3D Multi-Sensor Balanced Fill-Flash, Multi-Sensor Balanced Fill-Flash, and Standard D-TTL Balanced Fill-Flash 3) AA (Auto Aperture)-type Flash available when used with SB-800/80DX and lens with built-in CPU 4) Non-TTL Auto Flash (A-type Flash) with a Speedlight such as SB-30/27/22s etc.
Flash Sync Mode	1) Front-Curtain Sync (normal sync), 2) Red-Eye Reduction, 3) Red-Eye Reduction with Slow Sync, 4) Slow Sync, 5) Rear-Curtain Sync
Ready-light	Lights up when flash fully charged with Speedlight SB-800/80DX/50DX/30/28/27/22s; blinks for full output warning
Accessory Shoe	ISO 518 standard-type hot shoe contact; Safety lock mechanism provided
Sync Terminal	ISO 519 standard terminal, lock screw provided
Self-timer	Electronically controlled; Timer duration: 2, 5, 10, and 20 seconds
Depth-of-field Preview Button	Stop-down lens aperture by pressing depth-of-field preview button
Remote Control	Via 10-pin remote terminal
Power Requirements	Exclusive Rechargeable Li-ion Battery EN-EL4 (11.1V DC), Battery Charger MH-21, Exclusive AC Adapter EH-6
Tripod Socket	1/4 in. (ISO1222)
Battery Monitoring System	The LCD monitor on the camera back displays the following information about the EN-EL4 battery: 1) Remaining charge (%); 2) No. of shots taken since last charge; 3) Calibration status (Recommended/Not required); 4) Battery life (5 stages)
Dimensions (W x H x D)	Approx. 157.5 x 149.5 x 85.5mm (6.2 x 5.9 x 3.4 in.)
Weight (without battery)	Approx. 1,070g (2.4lbs)
Supplied Accessories*	Li-ion Battery EN-EL4, Quick Charger MH-21, Body Cap, Camera Strap AN-D2H, AV Cable EG-D2, USB Cable UC-E4, LCD Monitor Cover BM-3, Nikon View Software CD-ROM
Optional Accessories	Wireless Transmitter WT-1/1A, Extension Antenna WA-E1, AC Adaptor EH-6, E-type Finder Screen, Anti-fog Finder Eyepiece DK-17A, Eyepiece Correction Lens DK-17C series, Speedlight SB-800/80DX/50DX, Nikon Capture 4 software, CompactFlash™ card

*Supplied accessories may differ in each country or area

Note:
DX Nikkor lenses are designed exclusively for Nikon digital SLRs and their DX format Sensor. When selecting a lens for use on a Nikon D-Series SLR, pay special attention to the angle of view that is possible with each selected focal length.
All Nikon D-Series SLRs will provide the same angle of view with each DX Nikkor and AF Nikkor lens. The shorter focal length DX Nikkor optics provide the widest available angle of view.

◆ Digital DEE™ is a technology developed by Applied Science Fiction. ◆ CompactFlash™ is a trademark of SanDisk Corporation. ◆ Products and brand names are trademarks or registered trademarks of their respective companies. ◆ Images on LCDs and monitors shown in this brochure are simulated.

Specifications and equipment are subject to change without any notice or obligation on the part of the manufacturer. August 2003 © 2003 NIKON CORPORATION

 **WARNING**

TO ENSURE CORRECT USAGE, READ MANUALS CAREFULLY BEFORE USING YOUR EQUIPMENT. SOME DOCUMENTATION IS SUPPLIED ON CD-ROM ONLY.



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Image quality mode: Raw
Lens: AF-S DX Zoom-Nikkor
17-55mm f/2.8G IF-ED
Exposure mode: Manual
Shutter speed: 1/1,000 sec.
Aperture: f/7.1
White balance: Preset
Sensitivity: ISO-equivalent 200



Time is of the essence to photojournalists heavily involved in action or sports photography. Capturing the moment demands instant response, high speed, accuracy, and logical design for ease of handling and operation. Image quality must be exceptional. And, these images must be deliverable into the workflow and out to the viewer quickly. Working alongside pros in the field, Nikon set out to satisfy these needs and demands through ground-up development of the next-generation professional digital SLR camera.

The Nikon D2H is ready to shape the future of digital photography. At the heart of the system is Nikon's exclusive new JFET image sensor LBCAST that makes great strides in quality, performance and efficiency, while also inheriting the advantages of the established Nikon DX Format. New image processing and auto white balance systems support the LBCAST sensor in realizing highly accurate color reproduction and total image quality. An all-new 11-area AF system ensures sharp, quick focus. A compact yet rugged magnesium shell, new lithium-ion battery system, and optional wireless (IEEE 802.11b) transmitter assure maximum field performance and fast movement of images into the workflow. And, full integration with the Nikon Total Imaging System rounds out this new camera's perfect combination of technology that achieves speed with accuracy as never before possible.

Nikon D2H

Welcome the speed, response and stability that will let you shoot fast, shoot reliably and make every second count

Capturing the spontaneity of the moment requires that your camera functions quickly and efficiently when you need it, and that it be ready to shoot again without delay. The D2H is a thoroughbred with speed and performance that will enable any pro to produce photographic images as never before.

8 frames per second with buffer for up to 40 consecutive shots

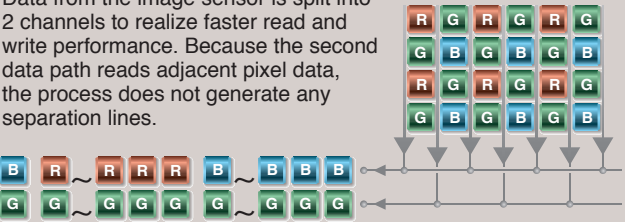
High-speed image processing, high performance hardware components and huge buffer capacity lets you shoot at 8 frames per second (fps) for up to 40 consecutive JPEG or 25 RAW (NEF) full-resolution images of 2,464 x 1,632 pixels in size. That's the fastest total number of continuous shots available on a Digital SLR (as of Sept. 1, 2003).

High-speed 2-channel data acquisition a feature of the new JFET image sensor LBCAST

Nikon developed the exclusive new JFET image sensor LBCAST to fully meet the needs of the professional photojournalists and action/sports assignments. Not only is it optimized to deliver a higher level of Total Image Quality, but also designed for maximum speed and high performance. The new LBCAST sensor reads 2 channels of data simultaneously from each pixel while also handling brightness data in the same process to achieve maximum image reproduction speed.

High-speed reads and writes realized by 2-channel data acquisition

Data from the image sensor is split into 2 channels to realize faster read and write performance. Because the second data path reads adjacent pixel data, the process does not generate any separation lines.

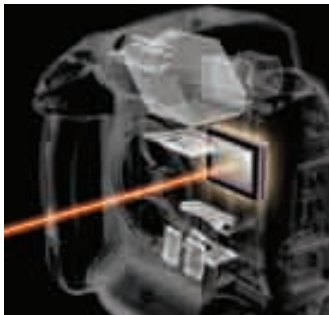


Instant response

The LBCAST image sensor's innovative design delivers yet another boost to speed by eliminating the need to perform fixed pattern noise correction or other power-up diagnostics that slow the start-up of other cameras. The D2H is ready to shoot the instant it is turned on. Combine this and other optimized systems with the extremely short shutter release time lag of just 37 milliseconds, speed that is comparable to the legendary Nikon F5 professional film SLR, and you have a new camera that is fast enough to realize the feel of a true professional digital SLR.



Mirror balancer



AF light path

Improved Mechanical Sequence Speed

In addition to the advancements made in the D2H's superb electronic components, its mechanical operations have



Image quality mode: Raw Lens: AF-S VR Zoom-Nikkor 200-400mm f/4G IF-ED Exposure mode: Manual Shutter speed: 1/500 sec. Aperture: f/5.6 White balance: Preset Sensitivity: ISO-equivalent 200

been completely revised and optimized to support maximum performance for speed and accuracy. One good example is the mirror balance mechanism, which completes its motion and reaches a full stop virtually without mirror bounce to enable more stable mirror movement and maximum speed for smoother AF detection. This lengthens viewing time to provide faster and more accurate Focus Tracking and support 8 fps continuous shooting. It's an all-new system to support the D2H's speed with accuracy.

Reliable Shutter Unit

The D2H is equipped with a further refined version of the durable and precise double-bladed shutter mechanism used on Nikon's F5 Pro SLR. To enhance system reliability, the shutter unit is tested to over 150,000 cycles. Shutter speeds from 1/8,000 to 30 seconds are available, or you can opt to use Bulb exposure.



Image quality mode: Raw Lens: AF-S VR Zoom-Nikkor 70-200mm f/2.8G IF-ED Exposure mode: Manual Shutter speed: 1/1,000 sec. Aperture: f/5 White balance: Preset Sensitivity: ISO-equivalent 200

High-speed, high-precision AF delivers the stability and accuracy that’s critical to all your photography

The highly advanced 11-area Auto Focus System and Auto Exposure functions add greater speed, precision and flexibility that make it possible to capture subjects faster, sharper and more efficiently. Every aspect of D2H is built to support the need for speed.

New 11-area AF system features 9 cross-type AF sensors

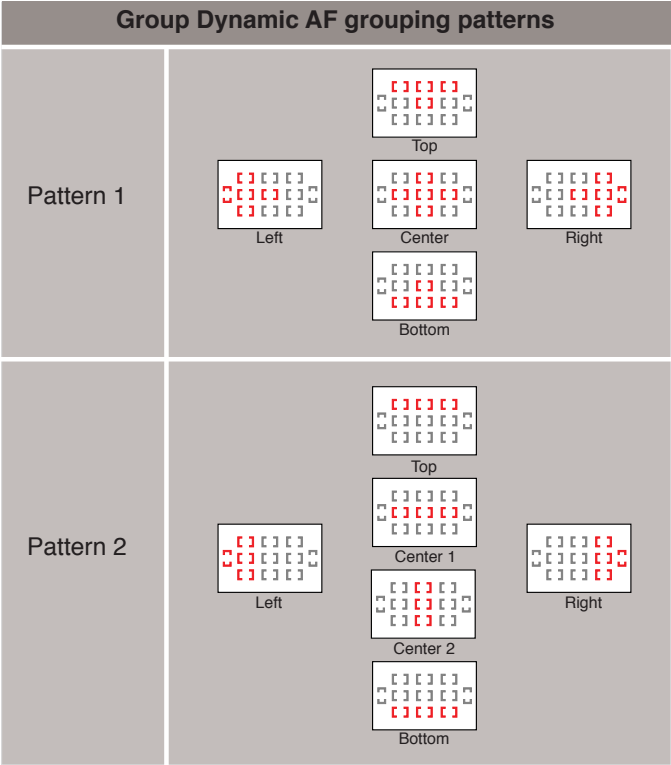
The new advanced Multi-CAM 2000 AF Sensor Module ensures quick response and razor-sharp focus, even in challenging shooting conditions. The system features eleven AF sensors of which nine are scross-type sensors that effectively cover the majority of the image area. The nine cross-type sensors operate with AF Nikkor lenses that are f/5.6 or faster, and performance is not influenced by changes in f/stop; that means the sensors work with virtually the entire AF Nikkor lens lineup. With its new AF sensor array, an added advantage of the new AF module is its ability to easily focus on subjects in the upper or lower portions of the outer frame area. The large area covered by each sensor makes focus detection fast and precise to deliver performance that is free of AF hunting, even when acquiring very-out-of-focus subjects. The AF System provides a selection of operating modes, each designed deliberately to ensure maximum speed and accuracy because, as an action photographer, you’ll confront so many different conditions that require an optimized mode.



Image quality mode: Raw Lens: AF-S 300mm f/2.8D IF-ED Exposure mode: Manual
Shutter speed: 1/1,000 sec. Aperture: f/4.5 White balance: Direct sunlight
Sensitivity: ISO-equivalent 200

• Single Area AF

Single Area AF essentially lets you choose among and lock focus with any of eleven AF spot sensors. This eleven sensor pattern corresponds with classic composition techniques known as the “rule of thirds.” The selected focus area is indicated on the Top Control Panel, and can be confirmed through the focus indicators (red pointers) in the viewfinder.



• Dynamic AF with Focus Tracking and Lock-on™

If your subject moves from its original position once you’ve selected a priority focus area, Dynamic AF ensures accurate focusing by shifting instantly and automatically from your selected focus area to the one into which the subject has moved. Focus Tracking automatically follows a moving subject, and Lock-On™ continues to track your main subject, even if something momentarily blocks it in the viewfinder or it moves off an AF sensor. Nikon’s unique overlap servo method drives the focus movement of the AF system and the lens simultaneously to realize fast and accurate AF operation.

• Closest Subject Priority Dynamic AF

Automatically identifies one or more focus areas, as needed, to capture the subject the AF system determines to be the closest to the camera. This mode is ideal when your subject is against a distant background, or you want to quickly focus on the foreground subject.

• Group Dynamic AF

Group Dynamic AF delivers yet greater control over the composition of action shots. Narrow the range to a specific group

of three to five active sensors and have the AF system focus on the closest item in the group. This mode is particularly useful when aiming to capture a subject that remains in a specific portion of a sports shot or other scene where a lot of action is taking place within the image area.

Exposure metering

3D Color Matrix Metering automatically calculates the optimum exposure value by evaluating brightness, color, contrast, selected focus area and subject-to-camera distance information, and then referencing the large onboard database. The combination of Nikon's exclusive 1,005-pixel RGB exposure/color metering sensor, advanced algorithms that reference a database developed from over 30,000 scenes from actual photography, and finally high-speed processing results in automatic exposure upon which you can depend.

Center-weighted Metering concentrates 75% of its sensitivity within an 8mm circle and the remaining 25% in the surrounding area. You can change the diameter of the center-weighted circle using Custom Setting "b6".

Spot Metering can be used with Single Area AF operation to provide precise metering by reading a 3mm-diameter area that corresponds to the selected AF area. Or, use it with Dynamic AF and choose the sensor to be used for metering.

Exposure modes

[P] Programmed Auto with Flexible Program automatically sets the shutter speed and aperture. Flexible Program can be used to quickly choose a correct alternate exposure-combination setting.

[S] Shutter-Priority Auto offers a choice of shutter speeds from 1/8,000 to 30 seconds.*

[A] Aperture-Priority Auto allows you to choose from the complete range of aperture settings.*

[M] Manual gives you full control over all settings, including Bulb.*

* In [S], [A] and [M] modes, the default increment for adjustments to shutter speed, aperture and bracketing is 1/3 step (1/3 EV). The setting can be changed to 1/2- or 1-step increments using Custom Setting "b3".



Image quality mode: Raw Lens: AF-S VR Zoom-Nikkor 70-200mm f/2.8G IF-ED Exposure mode: Manual
Shutter speed: 1/1,000 sec. Aperture: f/5.6 White balance: Direct sunlight Sensitivity: ISO-equivalent 400

Exposure compensation

Manual control is available from -5 to +5 EV in 1/3, 1/2 or 1 EV steps.

Auto Exposure Bracketing

Automatic bracketing of 2 to 9 consecutive frames with EV values changing in increments of 1/3, 1/2, 2/3 or 1 EV. Changes for exposure will correspond with the mode’s automatically selected variable. Bracketing in [P] Mode incrementally changes the aperture and shutter, [S] Mode changes the aperture, and [A] Mode changes shutter speed.

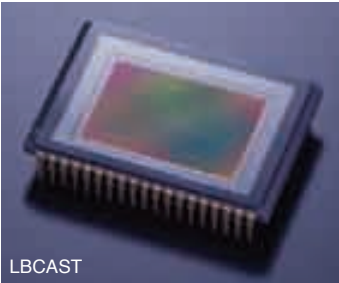
Sensitivity (ISO equivalency)

Thorough testing to find the perfect combination of productivity and image quality revealed sensitivity of ISO-equivalent 200 to be the optimal starting point for the D2H. Sensitivity can be manually set from ISO-equivalent 200 up to 1,600. Custom Setting "b2" can also be used to boost the highest setting one or two steps beyond 1,600 ISO-equivalent. The advanced noise-suppression technology of the LBCAST image sensor and image processing engine greatly reduce picture noise, and are particularly effective in the challenging high-sensitivity range.

New sensors and programming are at the heart of next-generation D2H performance

Total Image Quality requires each component to perform optimally. The sensors and processing algorithms newly developed for the D2H demonstrate Nikon's determination to deliver perfectly combined technologies that respond to the photographer's needs.

New Nikon DX Format JFET Image Sensor LBCAST



speed and power efficiency. The result is the new JFET image sensor LBCAST, an exclusive Nikon design that combines performance innovations with the successful DX Format. The LBCAST sensor significantly reduces power consumption over previous generations, minimizes dark noise, and realizes these features while increasing speed. It combines JFET (Junction Field-Effect Transistor) technology and LBCAST (Lateral Buried Charge Accumulator and Sensing Transistor array) architecture with a host of innovations to render color, detail and sharpness as never before. Compare an image from this new sensor and you soon realize that speed, precision, accuracy, color and detail are the hallmarks of the LBCAST sensor and the D2H. The sensor's Optical Low Pass Filter (OLPF) effectively suppresses moiré patterns while its thinner new design also assures that it does not reduce image sharpness.

The new image processing engine

The new highly advanced image-processing engine on the system LSI features improved algorithms for 3D Matrix Image Control and innovative technologies that deliver subtle color gradations and smooth diagonal lines while diminishing color fringing and false colors. A wide range of aspects related to image quality affect sharpness, and the new LBCAST sensor uses advanced imaging technology to address them all – including control over noise, color artifacts, jaggies and false colors. The result is a superior combination of high speed and faithful color reproduction with sharper details.

Three color modes

The color reproduction system newly developed for the D2H improves on Nikon's already unrivalled color while optimizing the three available color modes to best match the specific assignment and workflow environment.

Mode I : sets hue and chroma values that are effective in rendering

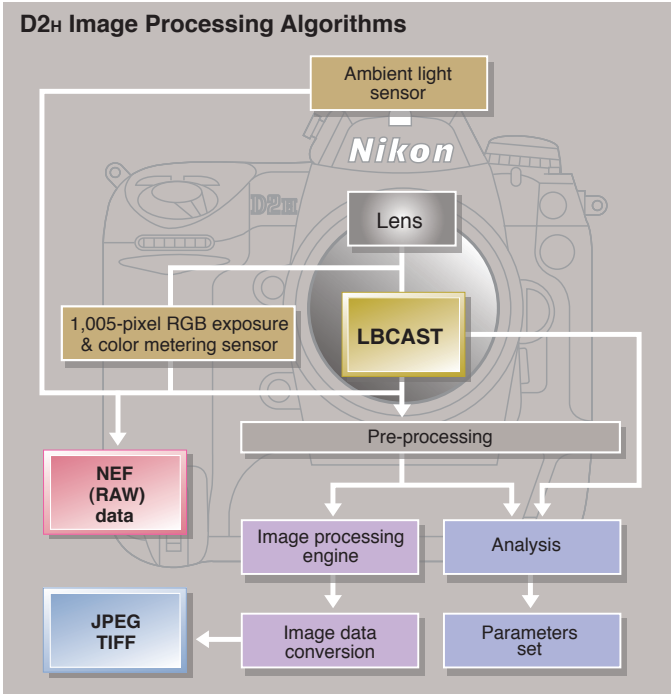
natural-looking skin tones in portraits. (Color profile: sRGB)
Mode II : realizes a wider color reproduction range for high-quality output with a wider color gamut. (Color profile: Adobe RGB)
Mode III : sets hue and chroma values for landscape and flora colors. (Color profile: sRGB)

Precise Auto White Balance / Auto Tone Control

The new advanced Auto White Balance (AWB) and Auto Tone Control (ATC) system developed for the D2H combines the advantages of three separate sensors to effectively handle complicated lighting conditions. AWB searches for white to use as reference and distinguishing color can be difficult when the subject is, for example, set against a backdrop of a single color. With one sensor for reading reflected light, a second for reading the image area during exposure, and a third for incident reading, the three-sensor system adds



The three sensors make it possible to shooting with greater white balance accuracy, even under conditions that complicate white balance adjustment, such as when the subject displays little variation in tone. Ambient light sensor



unprecedented depth and flexibility in measuring and comparing color temperature to achieve optimum white balance.
1) Nikon's acclaimed 1,005-pixel RGB Exposure / Color Matrix Metering Sensor performs direct TTL metering of the subject.
2) The LBCAST image sensor calculates the lighting characteristics of the image data in real time.
3) The new external Ambient Light Sensor meters ambient light without being affected by the color of the subject. The system also features revised integrated signal processing and AWB and ATC algorithms that contribute to refined color and tone reproduction.

New Manual White Balance & White Balance Bracketing

New to the selection of eight manual white balance modes is the Color Temperature mode that responds to the needs of the photographer by adding the ability to select Kelvin color temperature settings directly from 31 values covering a range between 2,500 K and 10,000 K. Preset mode allows quick selection from five white balance settings stored in memory to match a frequented venue or other conditions you shoot under regularly. The settings can be derived from a standard gray card reading, extracted from the CompactFlash memory card using the setting from an image taken by the camera, or from values created in Nikon Capture 4. White balance bracketing makes it easy to test different settings and find the one that best suits the assignment. Bracketing for 2 to 9 consecutive frames is available in adjustable increments of 10, 20 or 30 MIREds.

Real-time Noise Reduction

The results of this new automated process rival the quality of using the noise reduction setting available on the previous generation. However, the new signal-processing engine delivers this performance instantly and with no need to run a second pass to make the necessary correction. The D2H also continues to offer yet a higher level of noise reduction via the selectable noise reduction function.



Image quality mode: Raw
Lens: AF-S DX Zoom-Nikkor 17-55mm f/2.8G IF-ED
Exposure mode: Manual Shutter speed: 1/400 sec.
Aperture: f/3.5 White balance: Preset
Sensitivity: ISO-equivalent 400

New JPEG and RAW (NEF) Combination Filing System

Another Nikon first for the D2H is the option to simultaneously record RAW (NEF: Nikon Electronic image File) and JPEG data for the same shot to the camera's storage media. Now you can optimize and speed up workflow operations by selecting the file type or types that best suit your shooting conditions. Choose to shoot using only NEF or only JPEG format, or have the D2H produce both files from the same shot. Use JPEG for faster image transfer and keep the NEF as your ultimate electronic image file. NEF format is always a convenient option as you can later make non-destructive edit changes to your NEF file and subsequently produce JPEGs and TIFFs from the NEF file.

Image quality	Raw compression	Image size	File size*1	No. of images*1	Recording time*2
NEF+JPEG Fine	Comp. NEF (Raw)	L*3 M*3	*4 *4	*6 *6	70 (24 frames) 62 (24 frames)
	NEF (Raw)	L*3 M*3	7.9MB 7.1MB	58*5 66*5	99 (25 frames) 89 (25 frames)
NEF+JPEG Normal	Comp. NEF (Raw)	L*3 M*3	*4 *4	*6 *6	58 (24 frames) 53 (24 frames)
	NEF (Raw)	L*3 M*3	6.6MB 6.1MB	67*5 71*5	83 (25 frames) 76 (25 frames)
NEF+JPEG Basic	Comp. NEF (Raw)	L*3 M*3	*4 *4	*6 *6	57 (24 frames) 55 (24 frames)
	NEF (Raw)	L*3 M*3	6.5MB 6.3MB	72*5 79*5	81 (25 frames) 79 (25 frames)
NEF (Raw)	Comp. NEF (Raw) NEF (Raw)	—	*5	*6	50 (25 frames) 78 (25 frames)
		L M	11.5MB 6.5MB	41 74	350 (35 frames) 350 (35 frames)
TIFF (RGB)	—	L M	1.9MB 1.1MB	222 390	38 (40 frames) 22 (40 frames)
		L M	0.98MB 0.56MB	433 709	20 (40 frames) 11 (40 frames)
JPEG Fine	—	L M	0.49MB 0.28MB	780 1300	10 (40 frames) 6 (40 frames)
		L M	0.98MB 0.56MB	433 709	20 (40 frames) 11 (40 frames)

*1 All figures are approximate and based on the use of a 512MB memory card. Size of JPEG files varies with scene recorded.
*2 Approximate time needed to record all images once memory buffer has filled. Actual time required varies with make of card.
*3 Image size applies to JPEG images only. When opened in Nikon View or Nikon Capture 4, NEF images are 2,464 x 1,632 pixels in size.
*4 Total file size of NEF (RAW) and JPEG images. File size of compressed NEF (RAW) images is approximately fifty to sixty percent of uncompressed NEF images.
*5 Number of exposures remaining shown in control and viewfinder is the same as in the case of uncompressed NEF (RAW) images. The actual number of images that can be stored on the memory card is higher than shown.
*6 File size of compressed NEF (RAW) images is approximately fifty to sixty percent of uncompressed NEF images.

Nikon's Total Imaging System is complemented by NEW Nikon Capture and Nikon View Software versions

The tight integration between Nikon Capture 4 and Nikon View 6 and versatile features they deliver will earn these software packages a valuable role in your regular workflow. Moreover, discovering the "full power of NEF" and processing NEF with Nikon Capture is bound to change and improve your workflow altogether.

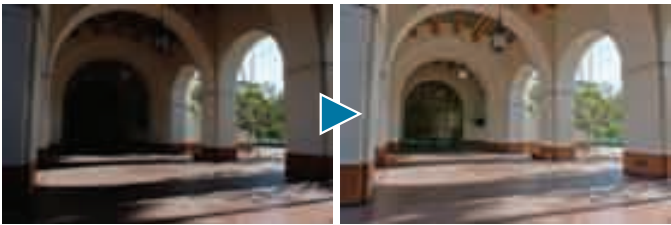
Nikon Capture 4



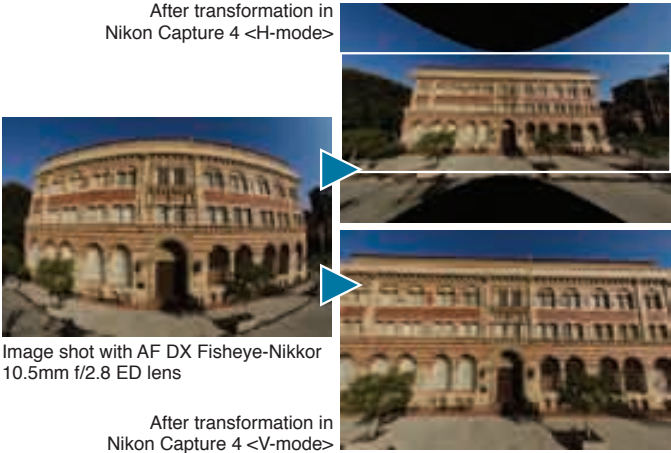
Nikon Capture offers a unique image-editing environment by giving the user the full power to edit the RAW image data within NEF (Nikon Electronic image File) files. Settings made manually or automatically at the time the shot was taken can be changed without ever changing the original image's settings. Any number of versions can be saved as Instruction Sets without affecting the original file. You get the best of versatile image editing combined with precious savings in hard disk space.

The Advantage of the Nikon Electric Image File
Some might compare NEF (Nikon Electronic image File) to always having a fresh negative on hand. In addition to the raw image data captured by the LBCAST image sensor and thumbnail images of the raw data, one basic component within the NEF file is an Instruction Set that retains the camera settings from the moment the shot was taken. Variations of Instruction Sets can be created in Nikon Capture and used to create several versions of the same image. Instruction Sets can be saved and applied to other shots, including using Capture's Batch control to apply them a large number of photos from the same shoot. Another advantage of the NEF file is that the 12-bit image data captured by the D2H is processed by an advanced algorithm and displayed in Nikon Capture as full 16-bit images. Working with 16-bit images allows you to make tonal and other color corrections with the smoothest fidelity. You can save the data as a 16-bit image TIFF file, save any changes as a new Instruction Set for the NEF file, or opt for JPEG compression when handling and transfer speed are the priority.

- **Support for NEF, TIFF and JPEG file types** - Capture 4 fully supports browsing and editing of the file formats supported by the D2H, including NEF, TIFF and JPEG.
- **Digital DEE™** scene-specific automatic dodge and burn control - a new function that applies the appropriate amount of dodge or burn to specific areas of a photo to bring out the highlights and achieve an overall exposure balance.

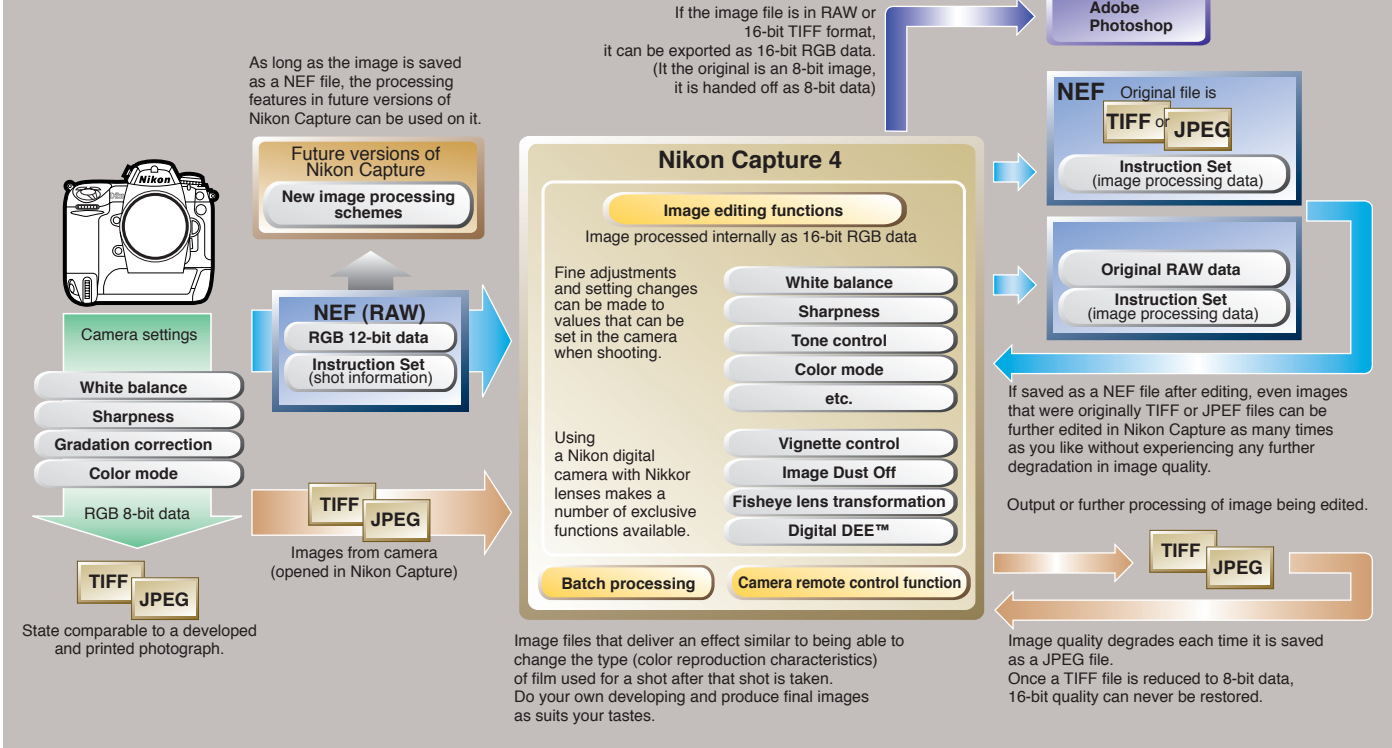


- **Fisheye-to-Rectilinear Image Transformation** - transforms the fisheye shots from the AF DX Fisheye-Nikkor 10.5mm f/2.8G ED lens into two modes(V-mode and H-mode)of ultra-wideangle images. This function allows the lens to double as a useful ultra-wideangle lens that extends the angle of view to an astounding 180° diagonal using Nikon DX Format.



- **Image Dust Off** sensor dust & particle shade removal control - a brand new function that uses a reference image first taken by the user to map dust on the sensor and then automatically remove the effect of sensor dust from NEF images. The time saved in post-processing alone will make this feature welcome with any photo editor. It's another powerful advantage of shooting in NEF format.
- **Vignette control** - virtually all lenses, especially wide-angle types, experience some degree of vignetting (gradual darkening from center-to-edge-to-corner). Use Capture's Vignette

Workflow in Nikon Capture

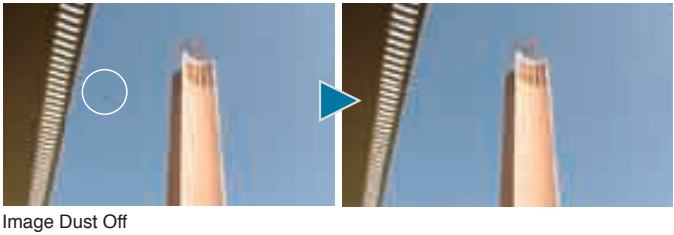


Control on NEF files to automatically adjust to counteract the vignette effect and produce images with near perfect center-to-edge-to-corner brightness.

- **Enhanced batch processing** - A wide variety of image adjustments and corrections can be automatically applied to any number of files in a folder for great savings in time when working with many photos shot under like conditions. Batch processing in Capture 4 adds more options, including the ability to create new folders and new destination subfolders.

Remote Camera Control

Nikon Capture can control most settings for the D2H remotely via the USB 2.0 interface, and images can be downloaded directly to a computer while shooting.



Nikon View

Nikon View software's versatile feature set and user-friendly GUI interface simplifies data transfer from camera to computer, makes browsing and organizing files easy, is nimble in performing basic retouch tasks, and can be used to view and print individual files. With support for JPEG, TIFF and RAW (NEF: Nikon Electronic image File) formats, Nikon View works in close unison with Nikon Capture as the ideal companion to its powerful feature set. Improvements to the new version include faster browsing, viewer and data transfer, easier editing of titles and captions, improved red eye correction, and automatic rotation of images to match the orientation of the shot.



Note: Nikon Capture 4 or later is required for full support of NEF files from the D2H.



Image quality mode: Raw
Lens: AF-S VR Zoom-Nikkor 70-200mm f/2.8G IF-ED
Exposure mode: Manual
Shutter speed: 1/500 sec.
Aperture: f/9
White balance: Preset
Sensitivity: ISO-equivalent 200

Reliability, Ruggedness, and Fast Handling are the Hallmarks of the new Nikon Digital-SLR design identity

Consistent with this camera’s design objectives is its ability to deliver effective, stable and reliable operation employing the latest technologies to ensure high-speed performance. The D2H design enables fast and effective handling under demanding circumstances.

Easy-to-view Displays

A massive 2.5-inch 211,200-pixel high-resolution LCD monitor is strategically positioned in the center of the body's back. Featuring a resilient tempered anti-scratch glass surface along with a Nikon BM-3 clear acrylic cover, the size and quality of the LCD monitor combined with larger type fonts and built-in features such as One-Touch Zoom that makes it easy to preview images at up to 4x magnification prove an effective tool for evaluating photos for sharpness, expression and exposure. Clearer viewing also improves accessing color-coded menus as well as the data display and histogram that will guide you towards the best exposure.

The new organization and menu display for the Custom Settings groups them according to basic features to make it easier and faster to find a setting, change it, and begin shooting. Because the camera’s memory bank can store up to four complete selections of Custom Settings, you can instantly and easily convert your camera to the optimized selection of Custom Settings for the assignment. Shooting menu settings are also



LCD monitor & Rear control panel



Top control panel

stored in four independent banks for fast and easy switching between custom sets of shooting menu settings. The top and rear control panels are also designed to convey maximum information in a manner that makes it quick to confirm at a glance. The sharp image of the larger new display is a real treat to look at.

Custom Setting Menus

Custom Settings	Default setting	Option
C Bank select		
R Menu reset		
a Autofocus		
a1 AF-C mode priority	Release button	Focus
a2 AF-S mode priority	Focus	Release button
a3 Group dynamic AF	Pattern 1	Pattern 2
a4 AF activation	Shutter/AF-ON	AF-ON only
a5 Focus area illum		
Manual Focus Mode	On	Off
Continuous Mode	On	Off
When Selected	0.2s	1 s
a6 Fofus area	No wrap	Wrap
a7 Vertical AF ON	AF-ON+Focus area	AF-ON AE/AF-L+Focus area AE/AF-L
b Metering/Exposure		
b1 ISO auto	Off	On
b2 ISO step value	1/3 step	1/2 step 1 step
b3 EV step	1/3 step	1/2 step 1 step
b4 Exposure comp. EV	1/3 step	1/2 step 1 step
b5 Exposure comp. EV	[+/-]&CMD Dial	CMD Dial only
b6 Center weight	ø6mm ø6mm ø10mm ø13m m	
c Timers/AE&AF lock		
c1 AE lock	AE-L/AF-L button	+Release button
c2 AE-L/AF-L	AE-L/AF-L	AE lock only AE lock hold/reset
c3 Auto meter-off	6 s 4 s 8 s 16 s	No limit
c4 Self-timer	10 s 2 s 5 s 20 s	
c5 Monitor off	20 s 10 s 1 minute 5 minutes 10 minutes	
d Shooting/Display		
d1 Shooting speed	3 fps 7 fps 6 fps 5 fps 4 fps 2 fps 1 fps	
d2 Maximum shots	40 fps(TIFF-RGB:1-35 fps, NEF(RAW):1-25 fps, NEF+JPEG:1-?? fps)	
d3 Exp. delay mode	Off	On
d4 Long exp. NR	Off	On
d5 File No. Seq.	Off	On Reset
d6 Cntrl panel/finder		
Rear Control Panel	ISO	Exposure count
Viewfinder Display	Frame count	Exposures remaining
d7 Illumination	Lamp on switch	Any button
e Bracketing/Flash		
e1 Flash sync speed	1/250 1/250 (FP auto) 1/200 1/160 1/125 1/100 1/80 1/60	
e2 Flash shutter spd	1/60 1/30 1/15 1/8 1/4 1/2	
e3 AA flash mode	On	Off
e4 Modeling flash	On	Off
e5 Auto BKT set	AE & Flash	AE only Flash only WB bracketing
e6 Manual mode bracketing	+speed +speed & aperture +aperture	Flash only
e7 Auto BKT order	MTR>Under>Over	Under>MTR>Over
e8 Auto BKT selection	Manual value select	Preset value select
f Controls		
f1 Center button		
Shooting Mode	Center Af area	Illuminate AF area Not used
Playback Mode	Thumbnail on/off	Histogram on/off Zoom on/off
f2 Multi selector	Do nothing	Reset mtr-off delay Initiate autofocus
f3 PhotoInfo/Playback	Info@/PB▲▼	Info▲▼/PB@
f4 FUNC. button	FV lock	FV lock/Lens data 1 stp spd/aperture Same as AE-L/AF-L
	Flash off	Bracketing burst Matrix metering Center-weighted spot metering
f5 Command dials		
Rotate Direction	Normal	Reverse
Change Main/Sub	Off	On
Aperture Setting	Sub-command dial	Aperture ring
Menus and Playback	Off	On
f6 Buttons and dials	Default	Hold
f7 No CF card?	On	Off

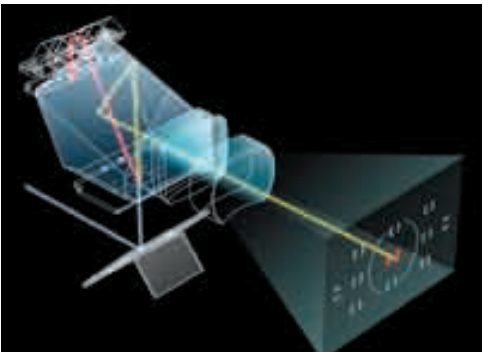
Viewfinder

The eye-level viewfinder developed for the D2H features frame coverage of virtually 100%, an eyepoint of 19.9mm, built-in diopter adjustment from -3 to +1m⁻¹, and a lock mechanism that prevents inadvertent removal of the eyepiece. Joining the familiar information bar along the bottom is a new second vertical info bar that adds displays of the current white balance mode, voice memo status, image quality and size settings, ISO sensitivity setting and more. Also available is an optional E-type Screen Finder with grid guide that is interchangeable with the provided B-type BrightView Clear Matte Screen III.



Viewfinder

Superimpose



Voice Memo

This new feature allows the photographer to record voice memos as WAV files of up to 60 sec. after each shot (auto/manual) or when in playback mode. These memos can be listened to via the built-in speaker when in playback mode or during slideshows.

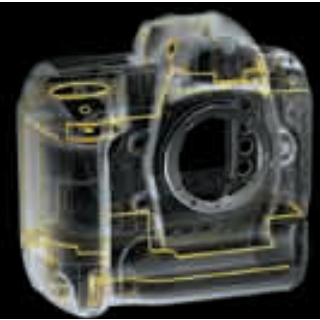
Built-in Interval Timer

The D2H is fitted with a new built-in intervalometer that makes time lapse photography easier and more portable.



Lightweight, Compact and Durable

The D2H is housed in a durable, lightweight and compact magnesium alloy body built to withstand the rigors of professional assignments. The sealing system is designed to cover every possible seam and exposed part to make the body highly resistant to drops of water and dust.



Principal points where sealing protects against drops of water and dust

Photographers will immediately appreciate the ergonomic layout and size of the buttons and controls. Operation is both smooth and intuitive to make the D2H comfortable in the hand and practical to use, even when wearing gloves. Of particular note are the Command and Sub Command dials for both horizontal and vertical shooting, larger AF-On buttons, and the new multi-selector. There's also a programmable new button on the front of the camera that will prove itself useful.

Innovation delivers greater freedom of movement for speedier workflow and greater productivity

From the Wireless Transmitter allowing broad and unencumbered movement, and the new lithium-ion battery system providing more time to shoot between charges or battery swaps, to large and efficient storage media reducing the number of cards used on an assignment, the D2H is made to keep up with the active photographer on the go.

Wireless Transmitter WT-1/1A* (optional)

The new light-weight Wireless Transmitter attaches to the camera bottom and connects to the D2H's USB 2.0 port to interface directly with any IEEE 802.11b compatible access point and realize wireless transfer of image and sound data to FTP servers. The transmitter's maximum range is approximately 150 m (500 ft) with the optional WA-E1 Extension Antenna attached. As shipped with its own WA-S1 Standard Antenna, the WT-1/1A will have a range of up to about 30m (100 ft).

The WT-1/1A was created because speed is essential to the action/sports photographer, and working in a sports arena provides an outstanding opportunity to take advantage of wireless image transfer. Now you can shoot continuously free of the need to lug a computer on your back or be otherwise tethered. It's true LAN freedom, now applied to the pro photographer's needs.

The WT-1/1A offers three security protocols to protect valuable image data being transferred. ESSID (Extended Service Set ID) adds a password that you configure in the access point. WEP (Wired Equivalent Privacy) is designed to provide the same level of security as that of a wired LAN. And, MAC Address lets you add a unique address on a wireless Mac network for a higher level of security. A choice of thirteen (WT-1) or eleven (WT-1A*)

frequency channels avoids interference from other wireless users. Operation can be set to automatically transfer the image every time a frame is shot, or to leave it to the user to select images for transfer while previewing them on the camera's LCD monitor. You can continue to shoot and capture images normally during data transfer, and transmission is automatically retried if it is disrupted for some reason.

*The WT-1A will be sold in U.S.A., Canada and other countries that limit use to eleven frequency channels instead of the full thirteen available on the WT-1.

High-speed data transfer with USB 2.0

The D2H features a Hi-Speed USB connector that is used when connecting the camera to a computer to download images, for operating the camera with the remote camera control software in Nikon Capture, or to hook up the Wireless Transmitter WT-1. With a theoretical maximum transfer rate of 480 Mbps, Hi-Speed USB delivers more than enough bandwidth to do the job right.

Storage media

The D2H is compatible with CompactFlash™ and other cards in the EC-CF series, as well as MicroDrive™ media. The D2H features faster read and write speeds to CompactFlash cards,

with the write speed for NEF (raw) files being some three times that of the D1 series. The FAT32 file system is supported, so CF cards of 2GB and larger capacity can be used. Lexar WA (Write Acceleration) technology is supported for extra speed, and compatible CF cards are recommended for fastest throughput.

New Rechargeable Lithium-ion Battery System

New lithium-ion technology expands battery performance on all fronts as it marks another evolutionary change from the Ni-MH battery technology used on the D1 series cameras. Not only is the new EN-EL4 rechargeable battery more compact and considerably lighter in weight, but it also boasts much greater energy capacity. The lithium-ion EN-EL4 is free from "memory effect", so can be recharged at any time or any level; it features

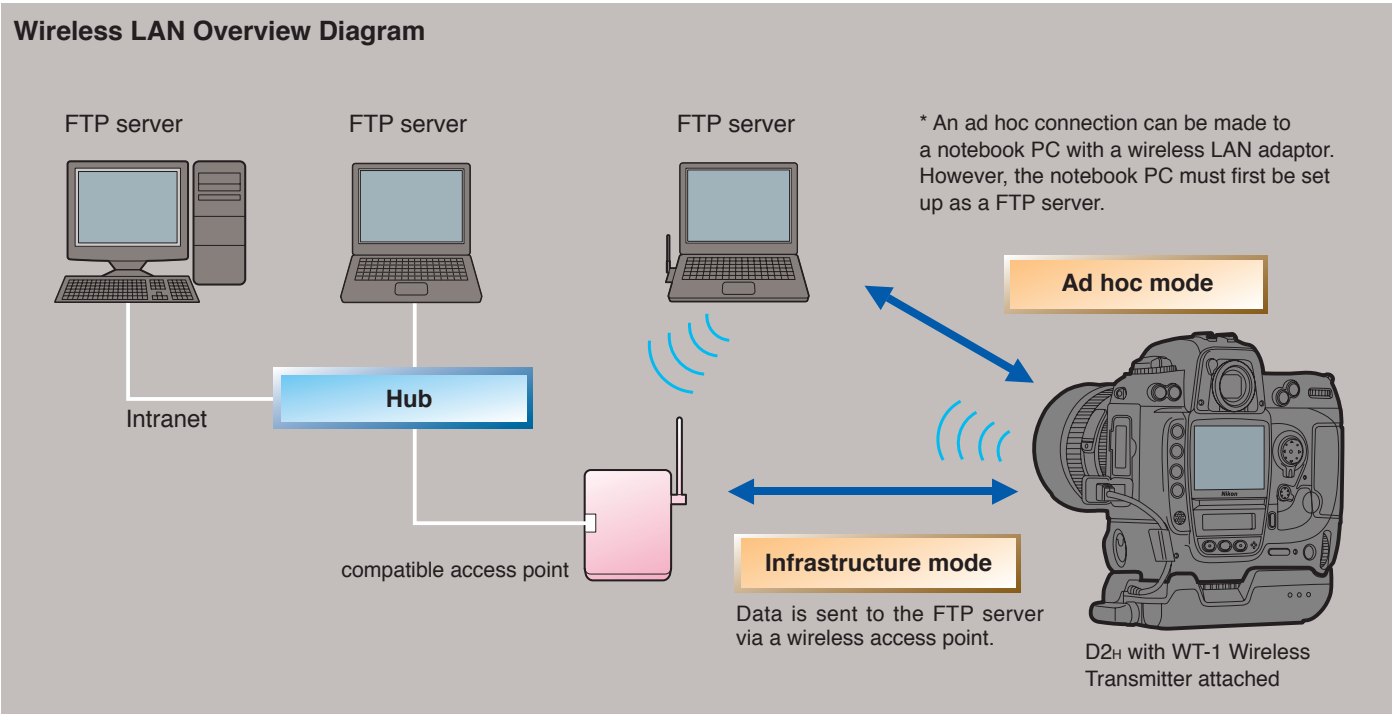


improved discharge cycle characteristics that extend battery life; and it performs better when subjected to low temperature conditions. Another improvement lies in the recessed contact points that prevent accidental shorting of the cells.

In addition to the 6-level battery indicator on the Top Control Panel, an accurate new status display on the LCD monitor shows the percent of remaining battery charge, the number of shots taken since the last charge, the overall status of the battery's life, and recommends calibration when necessary. A microchip built into the battery measures discharge capacity and compares it to the full (maximum) capacity recorded when the battery was last calibrated.



Battery status display & Fuel gauge



* Connections to remote FTP servers over the Internet are not supported



with Wireless Transmitter WT-1/1A and Extension Antenna WA-E1 (option)

Image quality mode: Raw Lens: AF-S 300mm f/2.8D IF-ED Exposure mode: Shutter-Priority Auto Shutter speed: 1/1,000 sec. Aperture: f/5.6 White balance: Auto Sensitivity: ISO-equivalent 200

An entirely new generation of Speedlight System was developed to realize the full potential of the D2H

When used with the new SB-800 Speedlight, the new Creative Lighting System delivers enough new features and possibilities that it takes a new generation of camera to completely tap the potential. The Total Imaging System just took a large step forward.



Speedlight SB-800
with AS-19 Speedlight
Stand attached

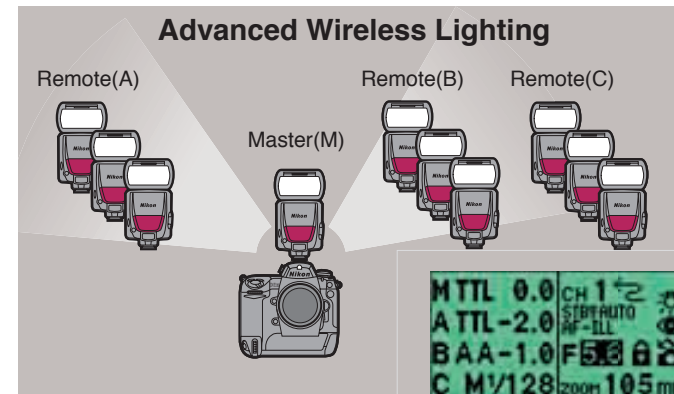
New Creative Lighting System

New Speedlight SB-800 with wireless i-TTL flash control evolves the technology beyond the D-TTL of the D1 series, and introduces features that include Advanced Wireless Lighting -- wireless remote control over multiple flashes, Flash Value Lock (FV Lock), AUTO FP High-Speed Sync, and Flash Color Information Communication. Also new is the Wide Area AF Assist Illuminator that is tailored to the new D2H's 11-area Multi-CAM 2000 AF Sensor Module. Additional features include a built-in wide flash adapter for 14mm wideangle lens coverage, GN 38/53 (ISO 100/200, at 35mm), and flash coverage from 35mm up 105mm in 5mm zoom steps when using the Auto Zoom function.

Nikon's i-TTL technology introduces an improved method for the monitor pre-flash. It also adopts an advanced new data communication protocol, improves the S/N ratio, improves accuracy of measurement when using bounce, and it features wireless operation. The D2H is optimized to take full advantage of the new i-TTL system.

Automatic balanced i-TTL fill flash

The brighter, shorter pre-flash scheme realized by i-TTL improves the accuracy of the monitor pre-flash used by the system's AE Sensor to evaluate flash exposure and perform an automatic balanced flash that delivers outstanding results and new creative possibilities.



Advanced Wireless Lighting (Wireless remote multi-flash)

Up to 4 groups of SB-800s can be operated for total lighting control, including the Master Controller and 3 remote groups, with each group consisting of any number of SB-800s. The master unit and individual groups can be set to different modes, (i-TTL, AA, A, or M), and the differences in brightness on the surface of the subject can be set for the master and for each remote Speedlight, so the flash output ratio can be set regardless of the distance to the subject after the remote is repositioned. These settings are made and confirmed on the Master Controller's large dot-matrix LCD with easy-to-see graphics. A choice of four frequency channels prevents interference with other photographers, or one SB-800 from triggering others.

One important feature of the new system is that the flash compensation can be adjusted on the fly for each group, including the Master Controller. Additionally, this wireless system can be set up without the hassle of add-on accessories such as cables or stands. Multi-flash photography can be as easy to use as a single Speedlight mounted on a camera. And, with a little practice, it can be exploited to produce a limitless number of effects.

Flash Color Information

The SB-800 realizes a new high level of color accuracy when used with the D2H. When in Auto White Balance mode, flash color information from the master SB-800 attached to the D2H is transmitted to the camera's body. Flash color information varies

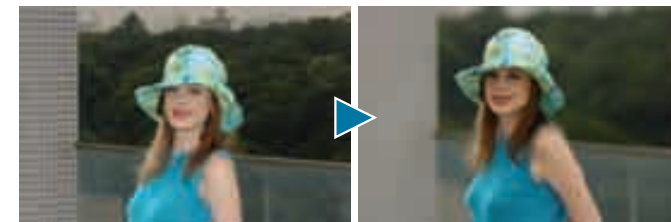
depending on voltage, flash duration and such. Data on each of these details is transmitted to the camera body and used in achieving optimum white balance.

FV Lock

FV Lock (Flash Value Lock) is the flash equivalent of AE Lock. It maintains the measured flash value once the light meter is used to obtain a correct flash exposure reading for a key part of the subject. The photographer can then change the compensation while achieving the appropriate flash value for the subject.

AUTO FP High-Speed Sync

When activated via Custom Setting "e1" on the D2H, Auto FP automatically fires in TTL Auto or A-A (as well as Manual) modes at shutter speeds up to 1/8,000 second to provide ample fill-in flash in bright light and with fast aperture lenses. The ability to shoot with the aperture open wide means effective blur can be achieved in the background.



Distance Priority Manual Flash Mode

You set the focal distance and aperture, and the SB-800 automatically sets the power output to maintain a constant flash exposure value. This is a great feature for manual flash when shooting weddings, product shots, or in other conditions where the subject remains at a set distance.

Modeling Flash

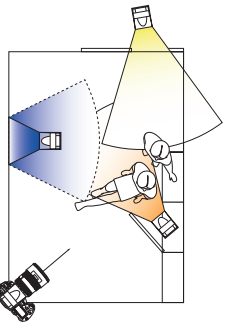
The new modeling flash fires a stroboscopic burst of light for approx. 1 second to allow the photographer to visually confirm lighting effects, including the location of shadows and reflective objects, before shooting.

Quick Recycling Battery Pack

The new SD-800 Quick Recycling Battery Pack adds a fifth battery to quicken recycling time to as short as 2.9 seconds for full power manual flash.



Image quality mode: Raw
Lens: AF-S Zoom-Nikkor 17-35mm f/2.8D IF-ED
Exposure mode: Manual
Shutter speed: 1/125 sec.
Aperture: f/8
White balance: Flash mode
Flash sync mode: Front-Curtain sync
Sensitivity: ISO-equivalent 200



Color Filters

The Speedlight SB-800 ships with two filters developed exclusively for digital cameras. One is for tungsten and the other for fluorescent lighting. The optional SJ-1 Color Filter Package includes an additional twenty filters designed either to compensate for flash colors or to add creative expression.

Compatible with existing Speedlights

(SB-80DX/50DX, etc.)

The D2H is compatible with the D-TTL flash control of Nikon SB-80DX/50DX(/28DX) Speedlights.

The SB-800 is backward compatible with previous Speedlights and with previous digital and film cameras, which use it with the same control as provided by the SB-80DX.

Nikkor Lenses offer one more compelling reason to choose the D2H!

Nikon has prided itself on its optics throughout the company's history. This can be witnessed in the extensive lineup of compatible AF Nikkor lenses, and in the new DX Nikkor lineup developed exclusively for DX Format digital SLRs and for the future.



Nikkor Lenses

The D2H is compatible with the extensive AF Nikkor lens lineup, which gives the photographer dozens of high-quality lenses from which to choose. Professionals across the globe favor AF Nikkors for their superb color, razor-sharp images, and consistently excellent autofocus performance. The lineup also features more fast (f/2.8) lenses than any other system. As the world's leader in precision photo optics, Nikon uses the finest components and processes for building Nikkor lenses. Heralded for image quality, Nikkor employs ED Glass, Aspheric Designs, high resolution, advanced zoom performance, the widest angles, Internal Focusing (IF), Rear Focusing, Close-Range-Correction (CC), Silent Wave Motors (SWM) and much more. Nikon's heritage for superior optics started during the company's first days close to a century ago, is alive and well today, and will continue into the future.



AF-S VR Zoom-Nikkor 200-400mm f/4G IF-ED

Nikon's first AF-S supertelephoto 200-400mm zoom lens aims directly at the focal range sports and action photographers want most. The lens features VR (Vibration Reduction) for a three step (eight times faster) advantage in shutter speed, M/A control and SWM (Silent Wave Motor). VR's Normal and Active Modes compensate for camera shake while supporting panning, motion when shooting from vehicles, automatic tripod detection and support for tripod VR function. Also new is the focus preset that allows you to set a specific distance to which the focus will instantly and automatically return. This new lens provides a picture angle that will cover from 12° 20' ~ 6°10' when used with a DX format Digital SLR.

DX Nikkor Lenses

DX Nikkor lenses are designed exclusively for use with cameras with Nikon DX Format sensors. DX Nikkor lenses deliver wider picture angle, higher performance, faster aperture, fast autofocus, smaller and lighter size and outstanding edge-to-edge image quality. A major advantage for DX Nikkor optics is the ability to make them compact. DX Nikkor lenses have a picture angle equal to approximately that of a 135 format lens with a 1.5x focal length. The first three lenses to join the DX Nikkor lineup and extend coverage to the ultra-wideangle range are as follows.



AF-S DX Zoom-Nikkor 12-24mm f/4G IF-ED

Compact, lightweight design realized by optimizing the image circle size and because it was developed exclusively for use with the Nikon DX Format. Its true focal length of 12-24mm covers an ultra-wide angle range from 99° at 12mm to 61° at 24mm.



AF DX Fisheye-Nikkor 10.5mm f/2.8G ED

The first fisheye lens developed exclusively for the Nikon DX Format is also the first to achieve a 180° picture angle on a digital SLR, it features optimized optical and close-range focusing performance, with a minimum distance of 14cm (5.5 in.), just 3cm (1.2 in.) from the front of the lens. Nikon Capture 4 enhances the possibilities of the lens by offering a function that transforms images taken with it to ultra-wideangle format images.



AF-S DX Zoom-Nikkor 17-55mm f/2.8G IF-ED

The world's first constant f/2.8 · 3.2x zoom lens developed exclusively for use with Nikon DX Format achieves a lightweight and compact design only possible with the DX Format. Its focal length range features a picture angle that covers from 79° at 17mm to 28°50' at 55mm and provides excellent versatility from wide-angle through standard and medium telephoto shots.New to the Vibration Reduction Lens lineup is the AF-S VR Zoom-Nikkor 200-400mm f/4G IF-ED.

Lens Compatibility Chart

Lens	Lens Construction (groups/elements)	Picture Angle with Nikon Digital SLRs	Picture Angle (with 135 format)	Closest Marked Focus Distance[Macro Setting]	Maximum Reproduction Raio [Macro Setting]	Filter Attachment Size (mm)	Dia. x Length (extension from lens mount) (mm)	Weight (g)	TC-14E II	TC-20E II
DX Nikkor										
AF DX Fisheye-Nikkor 10.5/2.8G ED	7/10	180°		0.14	1/5(0.2)		63 x 62.5	305		
AF-S DX Zoom-Nikkor 12-24/4G IF-ED	7/11	99°-61°	(118°-84°)	0.3 (1)	1/8.3	77	82.5 x 90	485		
AF-S DX Zoom-Nikkor 17-55/2.8G IF-ED	14/10	79°-28°50'		0.36	1/5(0.2)	77	85.5 x 110.5	755		
Zoom-Nikkor										
AF-S 17-35/2.8D IF-ED	10/13	79°-44°	(104°-62°)	0.28 (0.9)	1/4.6	77	82.5 x 106	745	—	—
AF 18-35/3.5-4.5D IF-ED	8/11	76°-44°	(100v-62°)	0.33 (1.1)	1/6.7	77	82.7 x 82.5	370	—	—
AF 24-50/3.3-4.5D	9/9	61°-31°30'	(84°-46°)	0.6 (2) [0.5 (1.6)]	1/10.6 [1/8.5]	62	67.5 x 74.1	355	—	—
AF 24-85/2.8-4D IF	11/15	61°-18°50'	(84°-28°30')	0.5 (1.6) [0.21 (0.7)]	1/5.9 [1/2]	72	78.5 x 82.5	545	—	—
AF-S 24-85/3.5-4.5G IF-ED	12/15	61°-18°50'	(84°-28°30')	0.38 (1.25)	1/4.7	67	73 x 72.5	415	—	—
AF-S VR 24-120/3.5-5.6G IF-ED	13/15	61°-13°20'	(84°-20°30')	0.38 (1.25)	1/4.8	72	77 x 95	580	—	—
AF-S 28-70/2.8D IF-ED	11/15	53°-22°50'	(74°-34v20')	0.7 (2.3)[0.5(1.7)]	1/8.6 [1/5.6]	77	88.5 x 121.5	935	—	—
AF 28-80/3.3-5.6G	6/6	53°-20'	(74°-30°10')	0.35(1.1)	1/3.4	58	66.5 x 64	195	—	—
AF 28-100/3.5-5.6G	6/8	53°-16'	(74°-24°20')	0.56 (1.8)	1/4.8	62	68 x 80	245	—	—
AF 28-105/3.5-4.5D IF	12/16	53°-15°20'	(74°-23°20')	0.5(1.7)[0.22(0.7)]	1/5.2 [1/2]	62	73 x 81.5	455	—	—
AF 28-200/3.5-5.6D IF	13/16	53°-8°	(74°-12°20')	2 (7) [0.85-1.5 (2.8-4.9)*4]	1/12.7[1/9.9]	72	78 x 86.5	520	—	—
AF 28-200/3.5-4.5G IF-ED	11/12	53°-8°	(74°-12°20')	0.6 (2) [0.28 (0.9)]	1/3.2	72	68.5 x 71	360	—	—
AF 35-70/2.8D	12/15	44°-22°50'	(62°-34°20')	0.6 (2) [0.28 (0.9)]	1/7.7 [1/4]	62	71.5 x 94.5	665	—	—
AF-S VR 70-200/2.8G IF-ED	15/21	22°50'-8°	(34°20'-12°20')	1.5 (5)	1/6.1	77	87 x 215	1,470	①	①
AF 70-300/4-5.6D ED	9/13	22°50'-5°20'	(34°20'-8°10')	1.5 (5)	1/3.9	62	74 x 116	505	—	—
AF 70-300/4-5.6G	9/13	22°50'-5°20'	(34°20'-8°10')	1.5 (4.9)	1/3.9	62	74 x 116.5	425	—	—
AF-S 80-200/2.8D IF-ED*1	14/18	20°-8°	(30°10'-12°20')	1.5 (4.9)	1/6.3	77	88 x 207	1,580	②	②
AF 80-200/2.8D ED*1	11/16	20°-8°	(30°10'-12°20')	1.8 (6) [1.5 (4.9)]	1/7.1 [1/5.9]	77	87 x 187	1,300	—	—
AF VR 80-400/4.5-5.6D ED*1	11/17	20°-4°	(30°10'-6°10')	2.3 (7.5)	1/4.8	77	91 x 171	1,340	—	—
AF-S VR 200-400/4G IF ED	17/24	8°-4°	(12°20'-6°10')	2(1.95)	1/3.7(0.27)	52	124 x 365	3,275		
Fisheye-Nikkor										
AF Fisheye 16/2.8D	5/8	107°	(180°)	0.25 (0.85)	1/10	Provided	63 x 57	290	—	—
Wideangle										
AF 14/2.8D ED	12/14	90°	(114°)	0.2 (0.66)	1/6.5	Provided	87 x 86.5	670	—	—
AF 18/2.8D	10/13	76°	(100°)	0.25 (0.85)	1/9.1	77	82 x 58	380	—	—
AF 20/2.8D	9/12	70°	(94°)	0.25 (0.85)	1/8.3	62	69 x 42.5	270	—	—
AF 24/2.8D	9/9	61°	(84°)	0.3 (1)	1/8.9	52	64.5 x 46	270	—	—
AF 28/1.4D	8/11	53°	(74°)	0.35 (1.15)	1/8.3	72	75 x 77.5	520	—	—
AF 28/2.8D	6/6	53°	(74°)	0.25 (0.85)	1/5.6	52	65 x 44.5	205	—	—
AF 35/2D	5/6	44°	(62°)	0.25 (0.85)	1/4.2	52	64.5 x 43.5	205	—	—
Normal										
AF 50/1.4D	6/7	31°30'	(46°)	0.45 (1.5)	1/6.8	52	64.5 x 42.5	230	—	—
AF 50/1.8D	5/6	31°30'	(46°)	0.45 (1.5)	1/6.6	52	63.5 x 39	155	—	—
Telephoto										
AF 85/1.4D IF	8/9	18°50'	(28°30')	0.85 (3)	1/8.8	77	80 x 72.5	550	—	—
AF 85/1.8D	6/6	18°50'	(28°30')	0.85 (3)	1/9.2	62	71.5 x 58.5	380	—	—
AF DC 105/2D	6/6	15°20'	(23°20')	0.9 (3)	1/7.7	72	79 x 111	640	—	—
AF DC 135/2D	6/7	12°	(18°)	1.1 (4)	1/7.1	72	79 x 120	815	—	—
AF 180/2.8D IF-ED	6/8	9°	(13°40')	1.5 (5)	1/6.6	72	78.5 x 144	760	—	—
AF 300/2.8 IF-ED*1	6/8	5°20'	(8°10')	3 (10)	1/7.0	39	133 x 255	2,700	—	—
AF-S 300/2.8D IF-ED II*1	8/11	5°20'	(8°10')	2.3 (7.5)	1/6.2	52	124 x 268.5	2,560	②	②
AF-S 300/4D IF-ED*1	6/10	5°20'	(8°10')	1.45 (4.8)	1/3.7	77	90 x 222.5	1,440	②	①
AF-S 400/2.8D IF-ED II*1	9/11	6°10'	(4°)	3.5 (11.5)	1/7.7	52	159.5 x 351.5	4,400	②	②
AF-S 500/4D IF-ED II*1	9/11	3°10'	(5°)	4.6 (15.1)	1/8.3 [1/7.7]	52	139.5 x 394	3,430	②	①
AF-S 600/4D IF-ED II*1	7/10	2°40'	(4°10')	5.6 (18.4)	1/8.3	52	166 x 430.5	4,750	②	①
Special Purpose										
AF Micro 60/2.8D	7/8	26°30'	(39°40')	0.219 (8 3/4 in.)	1	62	70 x 74.5	440	—	—
AF Micro 105/2.8D	8/9	15°20'	(23°20')	0.314 (1)	1	52	75 x 104.5	560	—	—
AF Micro 200/4D IF-ED*1	8/13	8°	(12°20')	0.5 (1 5/8)	1	62	76 x 193	1,190	—	—
AF Micro 70-180/4.5-5.6D ED*1	14/18	22°50'-9°	(34°20'-13°40')	0.37 (1.2)	1/1.32	62	75 x 167	1,010	—	—
AF-S & AF-I Teleconverters*2										
TC-14E II	5/5	—	—	—	—	—	66 x 24.5	200	—	—
TC-20E II*3	6/7	—	—	—	—	—	66 x 55	355	—	—

*1 Tripod mounting collar is provided. *2 Compatible with AF-S and AF-I lenses except AF-S DX 12-24mm f/4G IF-ED, AF-S DX 17-55mm f/2.8G IF-ED, AF-S 17-35mm f/2.8D IF-ED, AF-S 24-85mm f/3.5-4.5G IF-ED and AF-S 28-70mm f/2.8D IF-ED. *3 Autofocusing is possible only with an AF-S or AF-I Nikkor lens having a maximum aperture of f/2.8. *4 0.85m (2.8 ft.) at 28mm or 1.5m (4.9 ft.) at 200mm. ①Usable. ②Usable. Autofocusing is possible. —Not usable.

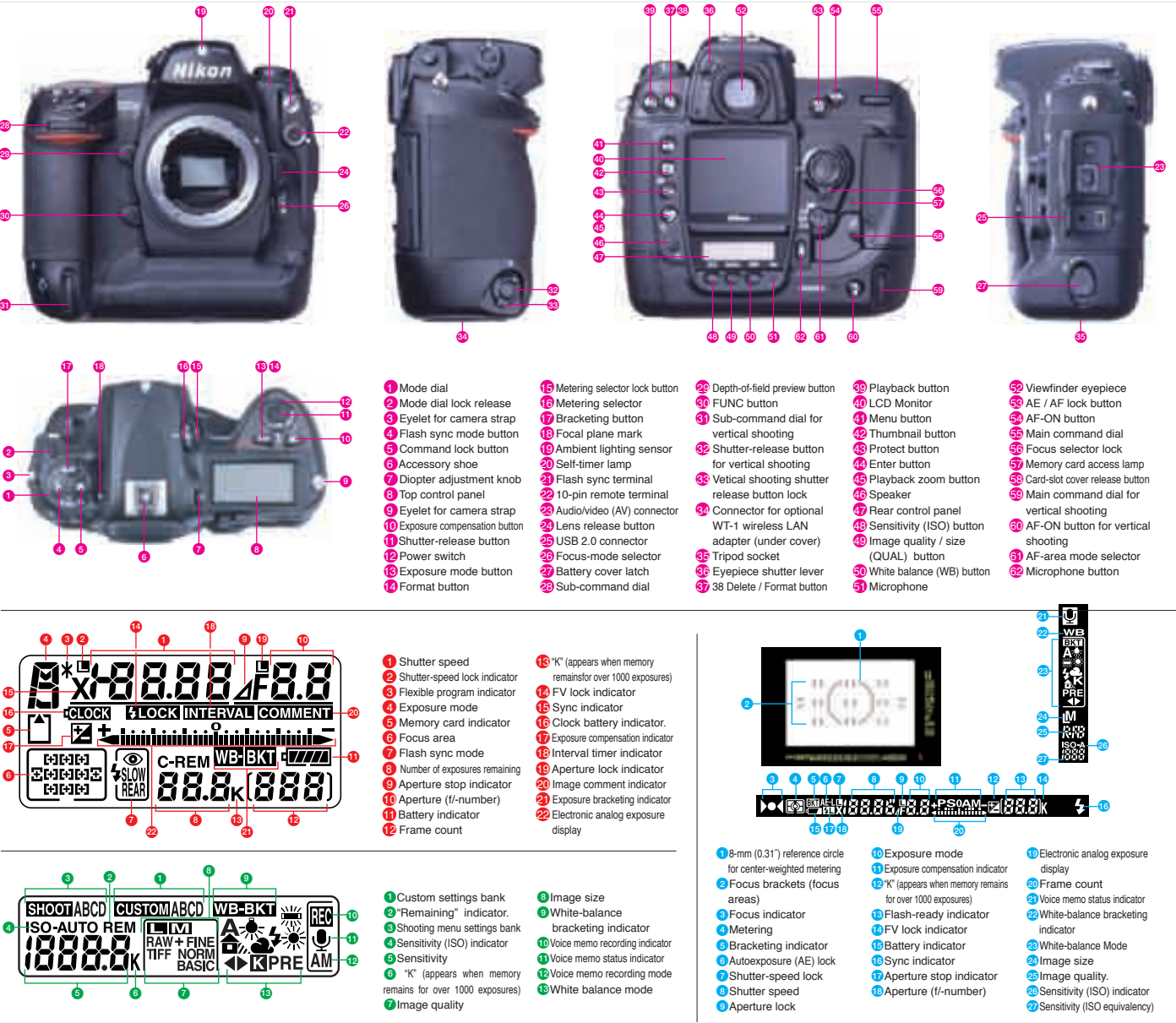
Function Compatibility Chart (IX-Nikkor lenses Cannot be used)

		Focusing		Exposure mode				Exposure metering mode		
		Autofocus	Electronic Rangefinder	[P]	[S]	[A]	[M]	Matrix	Center-Weighted	Spot
CPU lenses	AF-S, DX & D-/G-type AF Nikkors ²	○	○	○	○	○	○	○(3D Color)	○	○ ¹
	AF-S & AF-I Teleconverters ³	○ ⁴	○ ⁴	○	○	○	○	○(3D Color)	○	○ ¹
	Non-D-type AF Nikkors	○	○	○	○	○	○	○(Color)	○	○ ¹
	AI-P-type Nikkor	—	○ ⁵	○	○	○	○	○(Color)	○	○ ¹
	D-type PC Micro Nikkor	—	○ ⁶	—	—	—	○ ⁷	○(3D Color)	○ ⁷	○ ^{1,7}
Non-CPU lenses	AI-type Nikkors	—	○ ⁵	—	—	○	○	—	○	○
	Reflex-Nikkors ⁸	—	—	—	—	○	○	—	○	○
	PC-Nikkor ⁸	—	○ ⁹	—	—	○ ¹⁰	○ ¹¹	—	○	○
	AI-type Teleconverters	—	○ ⁴	—	—	○	○	—	○ ²	○ ¹²
	Bellows Focusing Attachment PB-6 ¹³	—	○ ⁴	—	—	○ ¹⁴	○ ¹⁴	—	○	○

Note: DX Nikkor lenses are designed exclusively for Nikon digital SLRs and their DX format Sensor. When selecting a lens for use on a Nikon D-Series SLR, pay special attention to the angle of view that is possible with each selected focal length. All Nikon D-Series SLRs will provide the same angle of view with each DX Nikkor and AF Nikkor lens. The shorter focal length DX Nikkor optics provide the widest available angle of view.

1 Metering area corresponds to the selected focus area.
2 G-type Nikkor has no aperture ring. Aperture should be selected from camera body.
3 Compatible with AF-S and AF-I Nikkor lenses except AF-S 17-35mm f/2.8D IF-ED, AF-S 17-55mm f/2.8G IF-ED, 24-85mm f/3.5-4.5G IF-ED, 28-70mm f/2.8D IF-ED, DX 12-24mm f/4G IF-ED and DX 17-55mm f/2.8G IF-ED.
4 With maximum effective aperture of f/5.6 or faster.
5 With maximum aperture of f/5.6 or faster.
6 Without shifting/tilting.
7 The camera's exposure metering and flash control system do not work properly when shifting and/or tilting the lens, or when using an aperture other than the maximum aperture.
8 Some lenses cannot be used.
9 Without shifting.
10 Exposure determined by presetting lens aperture.
AE lock must also be done before shifting.
11 Exposure determined by presetting lens aperture.
Exposure must also be determined before shifting.
12 With some lenses, exposure compensation is needed (Please refer to teleconverter's instruction manual).
13 Auto Extension Ring PK-11A, 12 or 13 is necessary.
14 Exposure determined by presetting lens aperture on bellows. Release the shutter after exposure metering.

Bringing together the perfect combination of innovative technologies, ergonomics, and outstanding performance



Nikon View System Requirements

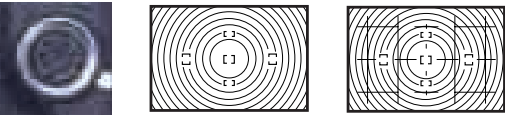
	Windows	Macintosh
OS	Pre- installed versions of Windows® XP (Home & Professional), Windows® 2000 Professional, Windows® Me, Windows® 98 Second Edition(SE)	Mac® OS 9.0.4, 9.0-9.2(only built-in USB ports are supported), Mac® OS X 10.1.2 or later
CPU	MMX® Pentium® 300MHz or higher performance CPU	iMac™, iBook™, Power Macintosh® G3 (Blue/White), Power Mac™ G4 or later, PowerBook® G3 (only built-in USB ports are supported) or later
RAM	64MB or more is recommended.	
HDD	Nikon View installation: Free disk space of at least 60MB is needed. Nikon View operation: Free disk space of at least 10MB plus an amount double the capacity of the memory card. (On boot disk)	
Display	800 x 600 or higher; 16-bit color or higher.	
Others	CD-ROM drive required for installation. Internet connection required for upload to the Web; e-mail program required for sending pictures by e-mail.	

Note 1: Data transfer may not work properly if the connection to a computer is via a USB hub.
Note 2: Installation and usage require user authorization.
Note 3: It can be installed onto machines with Windows 98. However, only the core features (features excluding printing, slide show, e-mail and web registration) are guaranteed to work.

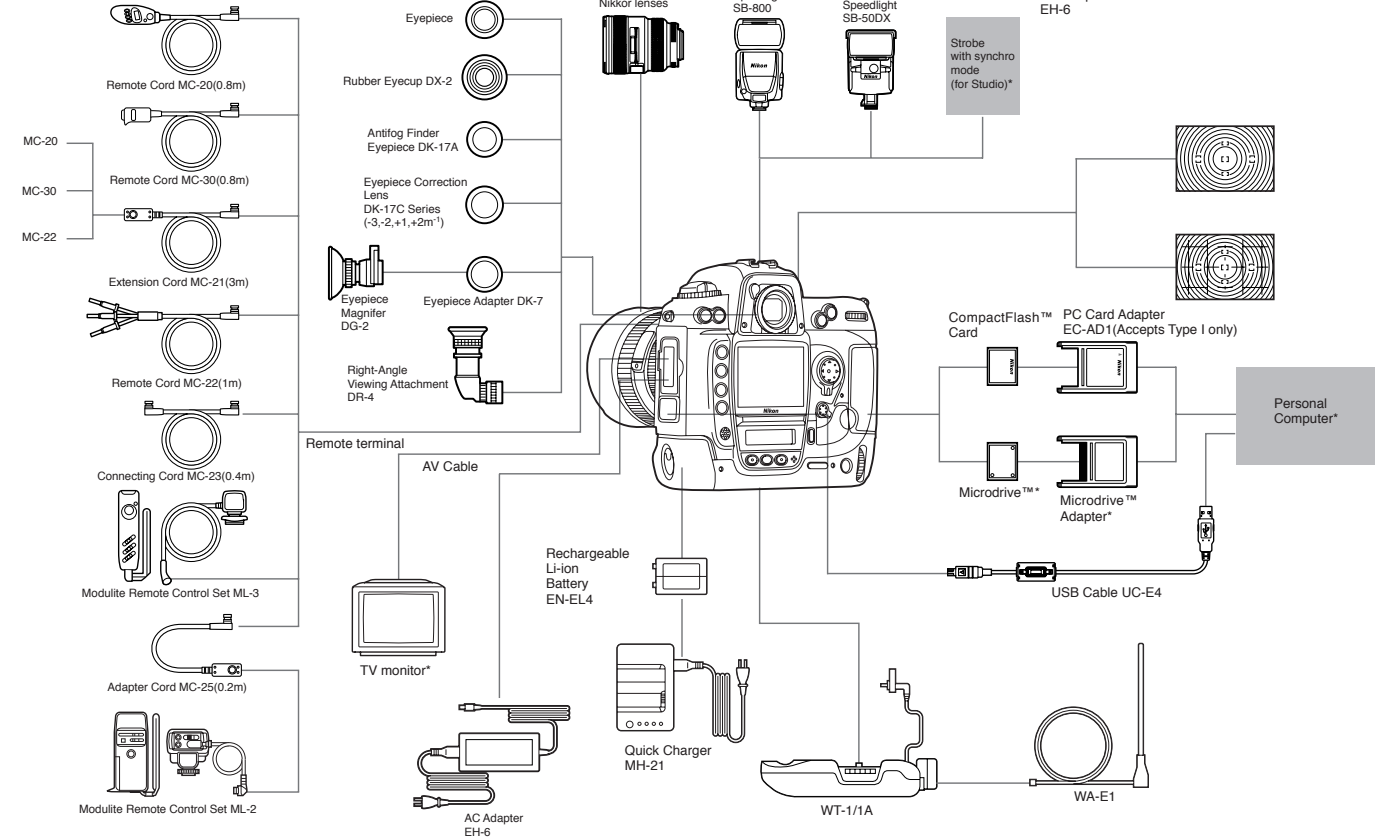
Accessories

Purchase extra EN-EL4 rechargeable Li-ion batteries to add the on-location capability of shooting an additional 2,000 images* per fully charged battery. Alternately, the D2H can be powered by the AC Adaptor EH-6.
A 10-pin connection terminal supports the use of remote control accessories such as the Remote Cord MC-20/MC-30/MC-22 or the Modulite Remote Control Set ML-3.

The optional E-type Finder Screen with grid guide is interchangeable with the B-type BrightView Clear Matte Screen III that is included with the D2H.



System Chart



Nikon Capture 4 System Requirements

	Windows	Macintosh
OS	Pre-installed versions of Windows 98SE, Windows Me, Windows 2000 Professional, Windows XP Home Edition, Windows XP Professional.	Mac OS 9.0.4, 9.1, 9.2, Mac OS X (version 10.1.3 or later). Models iMac, iMac DV, Power Mac G3 (Blue & White), Power Mac G4 or later; iBook, PowerBook G3 or later (only built-in USB ports or IEEE 1394 [Firewire] supported).
CPU	Pentium 300MHz or better.	
RAM	Windows XP: 128MB (256MB with RAW images) or more recommended. Other versions of Windows: 64MB (128MB with RAW images) or more recommended.	Mac OS X: 128MB (256MB or more recommended). Mac OS 9: 64MB (128MB or more recommended).
HDD	200MB required for installation, with additional free disk space of 10MB plus an amount equal to double the capacity of the camera memory card available on the system disk when Nikon Capture 3 is running.	200MB required for installation, with additional free disk space of 10MB plus an amount equal to double the capacity of the camera memory card available on the system disk when Nikon Capture 3 is running.
Display	800 x 600 with 16-bit color (High Color).	800 x 600 with 16-bit color (thousands of colors).
Others	CD-ROM drive required for installation. Internet connection required for upload to the Web; e-mail program required for sending pictures by e-mail.	CD-ROM drive required for installation. Internet connection required for upload to the Web; e-mail program required for sending pictures by e-mail.

Note 1: Data transfer may not work properly if the connection to a computer is via a USB hub.
Note 2: Installation and usage require user authorization.
Note 3: It can be installed onto machines with Windows 98. However, only the core features (features excluding printing, slide show, e-mail and web registration) are guaranteed to work.